SUPPLEMENTAL AGREEMENT NO. 1

this supplemental agreement, maday of, 2009, by and between the	ade and entered into thise West Lafayette Board of Public Works and
Safety, hereinafter referred to as the "LOCAL F Seufert, Inc., Indianapolis, Indiana, Consulting "ENGINEER".	PUBLIC AGENCY" and Butler, Fairman and
WITNES	SETH
WHEREAS, on September 12, 2006, the Agreement with the ENGINEER for services requireconstruction of Perimeter Parkway, Phase 1A, for Project No. DEM-IN(); Designation No. 0501163	or the West Lafayette/Purdue University Area;
WHEREAS, Appendix "A", Section E, state be made a complete Geotechnical Investigatio includes the necessary borings and subsurface ex	
WHEREAS, the Scope of Work, contai investigation will be conducted as needed at the tire	ned in the Agreement, states that a soils me the project is being developed.
WHEREAS, the parties hereto agree the geotechnical services at a cost based on the specunits of work performed, (estimate for geotechnical	
NOW, THEREFORE, the parties agree the modified by this Supplemental Agreement No. 1; services shall be added to the Agreement in \$26,220.00 from \$643,150.00 to an amount not-to-	creasing the amount of not-to-exceed by
IN TESTIMONY WHEREOF , the parties Agreement.	s hereto have executed this Supplemental
ENGINEER	LOCAL PUBLIC AGENCY
BUTLER, FAIRMAN and SEUFERT, INC.	BOARD OF PUBLIC WORKS & SAFETY CITY OF WEST LAFAYETTE
John W. Brand, President	John R. Dennis, President
	Bradley W. Marley, Member
	Susan K. Goldman, Member
Attest:	Attest:
Bradley D. Watson, Executive V.P.	Judith C. Rhodes, Clerk-Treasurer

SUPPLEMENTAL AGREEMENT NO. 1 PROJECT NO. DEM-IN (); DES NO. 0501163 WEST LAFAYETTE PERIMETER PARKWAY

SUMMARY OF SUPPLEMENTED FEE SCHEDULE

Fee Schedule Summary	Original Agreement	Proposed
		Supplement No. 1
a. Survey	\$97,500.00	
b. Design Summary Report	6,000.00	
c. Public Hearing (includes Hearing Transcript)	25,600.00	
d. Environmental Services, Level 4 Cat. Exclusion	40,650.00	
e. Conceptual Plan	36,400.00	
f. Utility Plan	26,000.00	
g. Road Design and Plans	399,100.00	
h. Site Assessment (Phases I and II)	11,900.00	
i. Geotechnical Investigation		\$26,220.00
Subtotal	\$643,150.00	\$26,220.00
Total		\$669,370.00





March 10, 2009

Butler, Fairman & Seufert, Inc. 8450 Westfield Boulevard, Suite 300 Indianapolis, IN 46240-8302

Attention:

Mr. Daniel J. Isaacs, P.E.

Re:

Geotechnical Engineering Investigation

Proposed Purdue Perimeter Parkway – Phase 1A

INDOT Des. No. 0501163

West Lafayette, Tippecanoe County, Indiana

ATC Proposal Number PE-09-0065

Gentlemen:

We are pleased to submit this proposal for performing a geotechnical engineering investigation for the referenced project. It is our understanding that the project will consist of the construction of Phase 1A of the Purdue Perimeter Parkway from Martin C. Jischke Drive to Grant Street in the southern portion of the Purdue University campus. The Phase 1A segment of the roadway will follow the general alignment of the existing Harrison Street and will include a roundabout at the intersection with Martin C. Jischke Drive. The project will require the installation of modular block retaining walls to provide modest grade separation at various locations along the alignment, primarily in the eastern portion of the project area. Two of the modular block walls will be located on the south side of the roadway at the crest of a steep embankment that slopes downward toward Harrison Pond. The project will also include storm sewers.

The objectives of this investigation are to determine the existing subsurface conditions at the project site and to develop recommendations necessary for the design and construction of the earth related elements of the proposed project. The proposed subsurface exploration consists of drilling approximately sixteen test borings to depths of 20 to 50 ft (thirteen test borings to a depth of 20 ft and three test borings to a depth of 50 ft). Split-spoon samples (ASTM D-1586) will be obtained at 2.5 ft intervals to a depth of 15 ft below the existing ground surface and at 5 ft intervals elsewhere. Ground water level observations will be made during drilling operations, after withdrawal of the augers from the borings and 24 hours after withdrawal of the augers from selected borings. The test borings will be backfilled in accordance with Indiana Department of Transportation (INDOT) Aquifer Protection guidelines. We will backfill the boreholes with the auger cuttings and plug the upper 1 ft of the boreholes with concrete.

A reconnaissance/field check of the project site will be made by a geotechnical engineer from our staff and the boring locations will be established in the field at that time. ATC will contact Indiana

Underground Plant Protection Service to locate underground utilities that are owned by the member utility companies.

Laboratory tests will be performed as necessary to establish the significant characteristics and parameters of the subgrade soils. In addition to engineering classification tests, the laboratory testing program will include a standard Proctor maximum dry density test and resilient modulus tests performed on a representative sample of the pavement subgrade soils. After completion of the field investigation and laboratory tests, an engineering report will be prepared containing recommendations to guide design and construction of the roadway embankments, the modular block walls and the pavements. The proposed subsurface exploration, laboratory testing program and engineering analyses are in general conformance with the requirements of the Indiana Department of Transportation – Office of Geotechnical Engineering guidelines for geotechnical investigations. The final field exploration and laboratory testing program may require some modifications after review by INDOT engineers.

We propose to perform the work in accordance with the unit charges for the applicable items as shown on the attached fee schedule. The cost of the study will not exceed \$26,220.00, unless unexpected subsurface conditions are encountered or the project characteristics are changed significantly. If any changes in the program are indicated by the initial findings, we will consult with you and, with your approval, make such changes as are considered necessary. In any case, the cost estimate will not be exceeded without additional approval from you.

Our estimate covers the work needed to present our findings and recommendations in a report form. Not included are reviews of foundation drawings, preparation of construction specifications, special conferences and any other work requested after submittal of our report. This proposal does not include costs for restitution for landscape damage. In order to authorize this work, please sign and return one copy of the following Proposal Acceptance form and provide the necessary instructions regarding billing and other matters as appropriate.

If you have any questions concerning this proposal, please do not hesitate to call me.

Very truly yours,

ATC Associates, Inc.

Thomas J. Struewing, P.E.

Principal Engineer

PROPOSAL ACCEPTANCE FORM

This A	Agreement is made by acceptance below of the Contract etween ("Client")	Document this	day of	, 2009 by
(Addr	ess)			J
ATC (Group Services Inc. d/b/a ATC Associates Inc. of Indian and ATC agree as follows:			
A	ONTRACT DOCUMENT – Referred to as the "Contra CCEPTANCE FORM, the GENERAL TERMS AND Corvices, fee schedules and other documents listed below	CONDITIONS, ar	nd any proposals that	
	ROFESSIONAL SERVICES – ATC will provide profeste following documents: Proposal No. PE-09-0065 dated March 10, 2009	ssional services ("	Services") for the Cli	ent as indicated in
re	ESIGNATED REPRESENTATIVES – The parties desepresentatives to provide approvals, directives, and permonmunications under this agreement at the following addresses.	issions, including	ng named individuals changes, and to rece	as their authorized ive notices or other
ATC (GNATED REPRESENTATIVE GROUP SERVICES INC. ATC Associates Inc.	DESIGNATEI CLIENT) REPRESENTATIV	Æ
	Thomas J. Struewing ss: ATC Associates Inc. 7988 Center Point Drive, Suite 100 Indianapolis, Indiana 46256	Address:		
Phone	: 317-579-4006	Phone:		
UNLE	R SIGNATURE INDICATES ACCEPTANCE OF THE SS EXPRESSLY MODIFIED IN WRITING.	E CONTRACT DO	OCUMENT, AS DEF	FINED ABOVE,
ACCE	PTED BY:			
	GROUP SERVICES INC. ATC Associates Inc.	CLIENT:		
Ву:		By:	on authorized to exec	ute contracts)
Title:	Principal Engineer	`	m aumorized to exec	,
Date:_		Date:		



ATC CLIENT GENERAL TERMS AND CONDITIONS

- 1. PAYMENT Client will pay ATC for Services and expenses in accordance with the Contract Document. ATC will submit invoices to Client monthly together with reasonable supporting documentation requested by Client and a final bill upon completion of its Services. Unless otherwise agreed in writing, there shall be no retainage. Payment is due within thirty (30) days regardless of whether Client has been reimbursed by any other party. Past due amounts are subject to an interest charge on the outstanding balance of either one and one-half percent (1½%) per month or the maximum rate permitted by law. Client agrees to pay ATC's attorney's fees, interest, and all other costs incurred in collecting past due amounts.
- 2. OBLIGATIONS OF CLIENT Client warrants that all information provided to ATC is complete and accurate to the best of Client's knowledge. Client agrees to advise ATC, prior to beginning work, and during the work, of any hazardous conditions on or near the site known to Client. Client understands that ATC is relying upon the completeness and accuracy of information supplied to it by Client and ATC will not independently verify such information unless otherwise provide in the Contract Document. Client shall be solely responsible for and shall indemnify and hold harmless ATC for any costs, expenses or damages incurred by ATC due to Client's failure to follow applicable reporting and governmental requirements. Client will not hold ATC liable if ATC's recommendations are not followed and waives any claim against ATC, and agrees to defend, indemnify and hold ATC harmless from any claim or liability for injury or loss that results from failure to implement ATC's recommendations.
- 3. STANDARD OF CARE ATC's Services as defined by the Contract Document shall be performed in accordance with generally accepted industry principles and practices, consistent with a level of care and skill ordinarily practiced by the consulting profession currently providing similar services under similar circumstances at the time the Services were provided. Client agrees to give ATC written notice within one (1) year of any breach or default under this section and to provide ATC a reasonable opportunity to cure such breach or default, without the payment of additional fees to ATC, as a condition precedent to any claim for damages.
- 4. LIMITATIONS OF METHOD RELIABILITY The Client recognizes and agrees that all testing and remediation methods have reliability limitations, no method nor number of sampling locations can guarantee that a condition will be discovered within the performance of the Services as authorized by the Client. The Client further acknowledges and agrees that reliability of testing or remediation methods varies according to the sampling frequency and other variables and that these factors including cost, have been considered in the Client's selection of Services. ATC's observations only represent conditions observed at the time of the site visit. ATC is not responsible for changes that may occur to the site after ATC completes the work.
- 5. INTERPRETATION OF DATA Client recognizes that subsurface conditions may vary from those encountered at the locations where the borings, surveys, or explorations are made by ATC and that the data interpretations and recommendations of ATC's personnel are based solely on the information available to

- them. ATC will be responsible for its data, interpretations, and recommendations, but shall not be responsible for the interpretation by others or the information developed.
- 6. THIRD PARTY INFORMATION ATC is dependent on information available from various governmental agencies and private database firms to aid in evaluating the history of the site. ATC shall not be liable for any such agency's or database firm's failure to make relevant files or documents properly available, to properly index files, or otherwise to fail to maintain or produce accurate or complete records.
- 7. SITE ACCESS Client grants or shall obtain for ATC a right of entry to all parts of the project site necessary to complete the Services and it represents that it has obtained the applicable permits and licenses for the proposed work. If Client does not own the site, Client represents that it has or will obtain prior to the commencement of work, the authority and permission of the owner and/or the occupant of the site. Client acknowledges that due to the nature of the work, unavoidable damage may occur. Client waives its right of recovery for such unavoidable damage, and if Client is not the owner of the site, Client agrees to indemnify and defend ATC against any claims by the owner and/or occupant for any such damage.

Unless otherwise specified in the Contract Document, ATC is not liable for damages caused by exploratory demolition or investigation to identify, quantify, or evaluate building materials, systems, and/or components not readily accessible to ATC during ATC's performance of the Services. ATC is not responsible for unforeseen conditions that exist on site within building systems that prohibit or deter ATC from gaining access to building materials, systems, and/or components.

- 8. SITE CONTROL ATC's testing, observation, or inspection of the work of other parties on a project shall not relieve such parties of their responsibility to perform their work in accordance with applicable plans, specifications and safety requirements. Continuous monitoring by ATC's employees does not mean that ATC is observing or verifying all site work or placement of all materials. Client agrees that ATC will only make on-site observations appropriate to the field services provided by ATC and will not relieve others of their responsibilities to perform the work.
- 9. TEST AND SAMPLING LOCATIONS Unless otherwise specified in the Contract Document, the accuracy of test or sample locations and elevations will be commensurate only with pacing and approximate measurements or estimates. The Client should retain the services of a professional surveyor, if greater accuracy is required. Client will furnish, a diagram indicating the accurate location of the site. Sample locations may also be indicated on the diagram. ATC reserves the right to deviate a reasonable distance from the boring and sample locations unless this right is specifically revoked by the client in writing at the time the diagram is supplied.
- 10. SAMPLES AND EQUIPMENT ATC will not retain any samples obtained from the project site for more than 30 days, or as required by law, after submitting its report or issuing written tests



results. At no time does ATC assume title to any samples, all samples shall remain the property of the Client.

All laboratory and field equipment contaminated during ATC's Services which cannot readily and adequately cleansed of its hazardous contaminants shall become the property and responsibility of the Client. The Client shall purchase all such equipment as an expense of the Services, and it shall be turned over to the Client for proper disposal unless otherwise specified in the Contract Document.

11. ENGINEERING AND CONSTRUCTION SERVICES If the Services provided in the Contract Document only require construction materials testing, engineering and/or construction subsurface exploration, ATC assumes that there are no hazardous substances or constituents in the soils or groundwater underlying the site. ATC's duties and responsibilities are limited to performing tests and monitoring of specific construction activities as outlined in the Contract Document.

Unless otherwise specified in the Contract Document, any consulting, testing or monitoring related to environmental conditions, including, but not limited to hazardous waste, soil or groundwater contamination, or air pollutants are not part of ATC's engineering and construction Services. If it becomes apparent during the field exploration that hazardous substances or constituents may be present, field operations will be terminated.

- 12. OPINIONS OF COSTS ATC will provide estimates of costs for remediation or construction as appropriate based on available data, designs, or recommendations. However, these opinions are intended primarily to provide information on the range of costs and are not intended for use in firm budgeting or negotiation unless specifically agreed to in writing by ATC.
- 13. SAFETY ATC shall not, unless otherwise specified in the Contract Document, be responsible for health and safety procedures, construction means, methods, techniques, sequences, or procedures, nor be responsible for the acts or omissions of contractors or other parties on the site.
- 14. UTILITIES Unless otherwise specified in the Contract Document, it is Client's responsibility to mark or furnish the locations of all underground man-made obstructions. Client shall indemnify, defend and hold harmless ATC from and against any claims, losses or damages incurred or asserted against ATC related to Client's failure to mark, protect or advise ATC of underground structures or utilities.
- 15. ROOF CUTS Unless otherwise specified in the Contract Document, if roof cuts/samples are required by the Services in the Contract Document, it is the responsibility of the Client to make the appropriate repairs to these roof cuts. If a roofing contractor or maintenance personnel selected by Client is not on the roof to make repairs at the time samples are obtained, ATC may make temporary repairs, which may result in additional charges. ATC personnel are not certified in roofing repair therefore ATC under no circumstances shall be responsible for any water damage to the roofing system, building, or its contents resulting from ATC's temporary repairs.
- 16. HAZARDOUS CONDITIONS OR SUBSTANCES The client acknowledges that ATC has neither created nor contributed to

the creation or existence of any hazardous, radioactive, toxic, irritant, pollutant, substance or constituent, or otherwise dangerous conditions at the site. All site generated hazardous and non-hazardous waste, including but not limited to samples, drilling fluids, decontamination fluids, development fluids, soil cuttings, and used disposable protective gear and equipment, are the property of the Client.

- 17. RIGHT TO STOP WORK If, during the performance of Services, any unforeseen hazardous substance, material, element, constituent, condition, or occurrence is encountered which, in ATC's reasonable judgment significantly affects or may affect the Services, the risk involved in providing the Services, or the recommended scope of Services, ATC may immediately suspend work.
- 18. INDEMNIFICATION ATC shall indemnify and hold harmless Client, its employees, officers, directors, subsidiaries, and agents against claims, demands, and lawsuits, including reasonable attorney's fees to the extent arising out of or caused by the negligence or willful misconduct of ATC or its subcontractors in connection with all activities conducted in the performance of Services under this Agreement. The client shall indemnify and hold harmless ATC its employees, officers, directors, subsidiaries, and agents from and against claims, demands, and lawsuits, including reasonable attorney's fees, to the extent arising out of or caused by the negligence or willful misconduct of the Client or other contractors retained by Client in connection with all activities conducted in the performance of Services under this Agreement.
- 19. LIMIT OF LIABILITY ATC's total liability for the Services shall not exceed the proceeds from insurance or two times ATC's fees for Services whichever is less. Client agrees that all indemnifications granted to ATC shall also be extended to those subcontractors, individuals, or organizations retained by ATC for performance of the Services.
- 20. CONSEQUENTIAL DAMAGES In no event shall either party be liable to the other party for any consequential, incidental, punitive, or indirect damages including but not limited to loss of income, loss of profits, loss or restriction of use of property, or any other business losses regardless if such damages are caused by breach of contract, negligent act or omission, other wrongful act, or whether ATC shall be advised, shall have other reason to know, or in fact shall know of the possibility of such damages.
- 21. CLIENT INDEMNITY Client waives to the maximum extent permitted by law, its rights and agrees to indemnify and hold harmless, ATC its employees, officers, directors, subsidiaries, and agents against any and all claims for injury or loss sustained by any party, including the United States, from such exposures or from the presence of any such hazardous substance, constituent, or condition at the site.

Client further agrees to pay on ATC's behalf any judgment resulting against ATC, including any interest from and against any and all claims and liabilities in connection with toxic or hazardous substances or constituents. This indemnity includes but is not limited to the following:

a) ATC acting as Client's agent, when required or requested as part of the Contract Document to sign any hazardous waste manifest or other document related in any way to the identification, handling,



storage, disposal or other matter involving hazardous materials associated with this project, or when required or requested to make arrangements for proper transportation and disposal of waste;

- b) Client's violation of any federal, state or local statute, regulation or ordinance relating to the handling, storage or disposal of toxic or hazardous substances or constituents.
- c) Client's undertaking of or arranging for the handling, removal, treatment, storage, transportation or disposal of toxic or hazardous substances or constituents found or identified at the site; including contaminated samples and equipment toxic or hazardous substances or constituents introduced at the site by Client or third persons before or after the completion of the Services.
- d) Allegations that ATC is handler, generator, operator, treater or storer, transporter or disposer under the Resource Conservation and Recovery Act of 1976, Comprehensive Environmental Response, Compensation and Liability Act, or any other similar federal, state or local regulation or law.
- e) A third party brings suit or claim for damages against ATC alleging personal injury or property damage from exposure to or release of toxic or hazardous substances or constituents at or from the project site before, during or after the Services provided under this Contract Document.
- f) Any claim or liability for injury or loss as a result of cross-contamination caused by drilling and/or sampling.
- 22. WARRANTY ATC is not a manufacturer. If any equipment is used or purchased by ATC for a project the manufacturer's warranties if any on the equipment are solely those of the manufacturer. ATC makes no other representation, guarantee, or warranty, expressed or implied, in fact or by law, whether of merchantability, fitness for any particular purpose or otherwise, concerning any of the goods or Services which may be furnished by ATC to Client.
- 23. DOCUMENTS Project-specific documents and data produced by ATC under this Agreement shall, upon receipt of final payment, become the property of Client. ATC shall have the right but not the obligation to retain copies of all such materials.
- 24. RELIANCE Documents and data produced by ATC are not intended or represented by ATC to be suitable for use or reliance beyond the scope or purposes they were originally prepared for or for anyone except Client. Any such unauthorized use will be at the Client's or third party's sole risk.
- 25. CLAIMS Client agrees to pay ATC's costs (including reasonable attorney's fees) for defending ATC against any claims that a third party or a regulatory agency asserts against ATC related to the Services that were provided to Client. Claims include legal actions by a third party or a regulatory agency that are based upon the discoveries, findings or conclusions disclosed in reports supplied to Client by ATC. Client agrees to pay ATC's cost (including reasonable attorney's fees) for defending ATC against any claims Client makes related to the Services that are not adjudicated to be valid.
- 26. SUBPOENAS The Client is responsible for payment of time charges and expenses resulting from ATC's response to subpoenas

- issued by any party, involving any legal or administrative proceeding in which ATC is not named as a party, in connection with work performed under this Agreement. Charges are based on fee schedules in effect at the time the subpoena is served. ATC shall not object on client's behalf to any subpoena, but will make reasonable efforts to cooperate with client if client chooses to object.
- 27. TERMINATION OF CONTRACT This contract may be terminated by either party upon seven (7) days written notice. In the event of termination or suspension, by the Client, ATC shall be paid for Services performed prior to the termination date plus reasonable termination and suspension expenses.
- 28. ASSIGNMENT Neither the Client nor ATC may assign, or transfer its benefits, rights, duties or interest in this Agreement without the written consent of the other party. This Agreement shall be binding on and inure to the benefit of the successors and assigns of the parties.
- 29. FORCE MAJEURE Neither Client nor ATC shall hold the other responsible for damages or delays in performance caused by uncontrollable events, which could not reasonably have been anticipated or prevented, including but not limited to, acts of God, the public enemy, acts of the Government of the United States or of the several states, or any foreign country, or any of them acting in their sovereign capacity, materially different site conditions, wars, riots, terrorism, rebellions, sabotage, fires, explosions, accidents, floods, strikes, or other conceded acts of workers, lockouts, or changes in laws, regulations, or ordinances.
- 30. GENERAL PROVISIONS The captions and headings throughout this Agreement are for convenience only and do not define, limit, modify, or add to the meaning of any provision of this Agreement. If any provision of this agreement is in conflict with any provision of the proposal, the terms and conditions of this Agreement shall prevail unless the conflict concerns the scope of Services to be provided. If any provision shall to any extent be deemed invalid, it shall be modified if possible to fulfill the intent of the parties as reflected in the original provision and the remainder of this contract shall not be affected. This Agreement represents the entire understanding between the parties relating to the described Services and supersedes any and all prior Agreements whether written or oral.

The validity, interpretation, and performance of this Agreement shall be governed by and construed in accordance with the laws of the state in which the project is located. Any legal action arising out of this Agreement shall be venued in a court of competent jurisdiction within the state and county of the project site.

No waiver by either party of any default by the other party in the performance of any provision of this Agreement shall operate as or be construed as a waiver of any future default, whether like or different in character.

ATC is solely responsible for the performance of this Agreement, and no parent, subsidiary or affiliated company, or any of its directors, officers, employees, or agents shall have any legal responsibility whether in contract or tort, including negligence.



ATC Associates Inc.

Geotechnical Engineering 2008 Fee Schedule

<u>Item</u> <u>Service</u>	Est. <u>Qty.</u>	<u>Unit</u>		Unit <u>Price</u>	Item <u>Total</u>
 Mobilization and Field Coordination a. Mobilization of SPT Rig and equipment b. Mobilization of CPT Rig c. Field Coordination with Utilities 	1	each each Lump Sum	\$\$ \$\$ \$\$	240.00 412.00 310.00	\$ 240.00 310.00
 d. Field Coordination with Property Owners i. 1 to 10 Property Owners ii. 11 to 25 Property Owners iii. 25 or more Property Owners e. Mileage 	1 126	Lump Sum Lump Sum Lump Sum per mile	\$	280.00 465.00 630.00 3.00	280.00 378.00
Truck Mounted Borings with 2 in. Split-Spoon Sampling a. Standard	120	feet	9 \$ \$	16.60	378.00
 b. Night Time 3. Truck Mounted Borings Using Drilling Fluid a. Standard b. Night Time 		feet feet feet	A & &	19.75 16.25 19.50	
4. Truck Mounted Core Drilling a. Standard b. Night Time		feet feet	\$ \$	34.40 41.20	
 5. Truck Mounted Borings a. Truck Mounted Boring through Bedrock, Boulders or Concrete Pavement i.) Standard ii.) Night Time b. Bridge Deck Coring and Restoration i.) Standard ii.) Night Time 		feet feet feet feet	\$ \$ \$	31.90 38.30 310.00 370.00	
 6. Cone Penetrometer Testing a. Set-up i.) Standard ii.) Night Time b. Subsurface Profiling i.) Standard ii.) Night Time c. Profiling with pore pressure measure i. Piezometric Saturation a. Standard b. Night Time ii. Penetration a. Standard b. Night Time ii. Piezometric Saturation 		each each feet feet each each feet feet	9 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	72.00 86.50 10.60 12.70 79.50 95.40 12.75 15.25	

Iten	<u>Service</u>	Est. <u>Qty.</u>	<u>Unit</u>		Unit <u>Price</u>	Item <u>Total</u>
	iii. Pore water dissipation testa. Standardb. Night Timeiv. Hydraulic Conductivity & Consolidation		hour hour	\$ \$	140.50 168.60	
	a. Standard b. Night Time		each each	\$ \$	62.50 75.00	
	d. Profiling with shearwave velocityi.) Standardii.) Night Timee. Sample		feet feet	\$ \$	15.45 18.55	
	i.) Standard ii.) Night Time		each each	\$ \$	21.00 25.30	
7.	Hand or Truck Soundings a. Standard b. Night Time		feet feet	\$ \$	10.55 12.60	
8.	Hand Auger Drilling a. Standard b. Night Time		feet feet	\$	11.35 13.50	
9.	Skid Mounted Borings with 2 in. Split-Spoon Sampling a. Standard b. Night Time	410	feet feet	\$ \$	25.65 30.90	\$ 10516.50
10.	Skid Mounted Borings using Drilling Fluid a. Standard b. Night Time		feet feet	\$ \$	26.10 31.30	
11.	Skid Mounted Core Drilling a. Standard b. Night Time		feet feet	\$\$ \$\$	37.50 44.90	
12.	Skid Mounted Boring through Bedrock or Boulders a. Standard b. Night Time		feet feet	\$ \$	39.00 46.75	
13.	Skid Mounted Soundings a. Standard b. Night Time		feet feet	\$ \$	14.95 18.10	

<u>Item</u>	<u>Service</u>	Est. <u>Qty.</u>	<u>Unit</u>		Unit <u>Price</u>	Item <u>Total</u>
14.	Furnishing of Boat for Hand Auger Soundings			cos	st +10%	
15.	Barge Set-up Expenses a. Navigable Water i. Barge Set-up ii. Rental of Support Equipment iii. Drill rig Down time b. Non-Navigable Water Barge Set-up		each per hour each	\$ \$ \$	4,975.00 cost +10% 129.00 4,285.00	
16.	Additional disassembly and reassembly a. Navigable Water b. Non-Navigable Water		each each	\$	1,825.00 1,610.00	
17.	Barge Mounted Borings with 2.0 in. Split-Spoon Sampling		feet	\$	28.70	
18.	Barge Mounted Core Drilling		feet	\$	38.80	
19.	Barge Mounted Boring through Bedrock and Boulders		feet	\$	43.45	
20.	Barge Mounted Soundings		feet	\$	16.90	
21.	Casing through Water		feet	\$	7.45	
22.	Uncased Sounding through Water		feet	\$	4.75	
23.	Set-up for Borings and Machine Soundings a. Borings and sound. less than 20 ft deep b. Rock Core Borings		each each	\$	60.50 104.30	
24.	Additional 2 in. Split-Spoon Sampling	16	each	\$	17.90	\$ 286.40
25.	3 in. Split-Spoon Samples		each	\$	21.10	
26.	3 in. Shelby Tube Samples		each	\$	56.65	
27.	Bag Samples a. 300 lbs. Sample b. 25 lbs. Sample	1	each each	\$	98.80 33.90	\$ 98.80
28.	Field Vane Shear Test a. Standard b. Night Time		each each	\$	99.50 119.40	
29.	4.5 in. Cased Hole		feet	\$	11.00	

lten	<u>Service</u>	Est. <u>Qty.</u>	<u>Unit</u>		Unit <u>Price</u>	Item <u>Total</u>
30.	Installation of Geotechnical Instruments a. Inclinometer Casing Installation i.) Standard ii.) Night Time b. Piezometer Installation Up to 25 ft c. Piezometer Install. Deeper than 25 ft. d. Metal Protective Cover		feet feet each each each	\$ \$ \$ \$ \$	12.65 15.15 237.00 330.00 106.00	
31.	Geotechnical Engineer	8	hour	\$	95.00	\$ 760.00
32.	Railroad Expenses				cost +10%	
33.	Twenty-four Hour Water Levels a. Field Measurements i.) Standard ii.) Night Time b. PVC Slotted Pipe	16 410	each each feet	\$ \$ \$	33.75 40.50 5.15	\$ 540.00 2111.50
34.	Special Backfilling of Boreholes a. 0 to 30 feet i. SPT a. Standard b. Night Time ii. CPT a. Standard b. Night Time b. More than 30 ft i. SPT a. Standard b. Night Time ii. CPT a. Standard b. Night Time ii. CPT c. Pavement Restoration i.) Standard ii.) Night Time	16	each each each feet feet feet feet each each	** ** ** ** ** **	94.25 113.00 40.25 48.30 5.75 6.90 1.65 1.85 53.50 61.40	\$ 1508.00 856.00
35.	Dozer Rental				cost +10%	
36. 37.	Traffic Control a. Flag Crew b. Equipment Rental c. Flag Crew with equipment Centerline Surveying	2 500.00	per day	\$	535.00 cost +10% 650.00 cost +10%	\$ 1070.00 550.00
38.	Sieve Analysis	8	each	\$	42.65	\$ 341.20
39.	Hydrometer Analysis	8	each	\$	49.00	\$ 392.00

<u>lterr</u>	<u>Service</u>	Est. <u>Qty.</u>	<u>Unit</u>		Unit <u>Price</u>	Item <u>Total</u>
40.	Moisture Content Test	40	each	\$	5.75	\$ 230.00
41.	Liquid Limit	8	each	\$	29.80	\$ 238.40
42.	Plastic Limit and Plasticity Index	8	each	\$	21.60	\$ 172.80
43.	a. Unconfined Compression Testb. Remolding of 3 soil samples with chemical addmixtures in soil modification/stabilization	10	each each	\$	41.20 98.70	\$ 412.00
44.	Specific Gravity Test		each	\$	30.80	
45.	Unit Weight Determination		each	\$	15.45	
46.	Hydraulic Conductivity Test a. Constant Head b. Falling Head		each each	\$	180.00 245.00	
47.	Consolidation Test		each	\$	398.00	
48.	Triaxial Test a. Unconsolidated-Undrained (UU) b. Consolidated-Undrained (CU) c. Consolidated-Drained (CD) d. Pore Pressure Measurement with a. or b. and Use of Back Pressure For Saturation		each each each	\$ \$ \$ \$ \$	309.00 470.00 640.00 212.00	
49a.	California Bearing Ratio Test		each	\$	490.00	
49b.	Subgrade Resilient Modulus	2	each	\$	440.00	\$ 880.00
50.	Standard Moisture-Density Relationship Test	1	each	\$	122.00	\$ 122.00
51.	Loss on Ignition Test		each	\$	21.60	
52.	pH Test	8	each	\$	13.40	\$ 107.20
53.	Collapse Potential Evaluation Test		each	\$	330.00	
54.	Geotechnical Profile and Related Work					
	a. Without Soil Subgrade Drawings - First Mile		lump sum	\$	1,060.00	
	Each Additional Mile b. With Soil Subgrade Drawings - First Mile Each additional mile		mile lump sum mile	\$ \$ \$	485.00 1,275.00 555.00	
	c. Soil Subgrade Drawings Only - First Mile Each Additional Mile		lump sum mile	\$ \$	330.00 205.00	

<u>Service</u>	Est. Qty.	<u>Unit</u>		Unit <u>Price</u>		Item <u>Total</u>
Geotechnical Report a. Without Soil Subgrade Invest First Mile Each Additional Mile b. With Soil Subgrade Invest First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each additional Mile	1	lump sum mile lump sum mile lump sum mile	\$ \$ \$ \$ \$ \$ \$	1,500.00 643.00 1,730.00 720.00 535.00 330.00	\$	1500.00
Settlement Analysis and Recommendations for Embankment a. Proposed Embankment b. Proposed and Existing Embankment		each each	\$ \$	460.00 495.00		
Ground Modification Design		each	\$	1,340.00		
Slope Stability Analysis a. c/0 or c and 0 Analysis b. Corrective Measures c. Stage Construction Corrective Method	1	each each each	\$ \$	720.00 720.00 1,215.00	\$	720.00
Bridge Foundation Analysis and Recommendations a. Shallow Foundations b. Deep Foundations i. Deep foundation analysis ii. Wave Equation Analyses c. Settlement Analysis for Bridge Pier Foundation i. Bridge Pier ii. Embankment Plus Pier iii. Embankment Plus Pier Plus All Other Loads d. Foundation on Bedrock		each each each each each	\$ \$\$ \$\$ \$\$ \$	425.00 770.00 300.00 345.00 380.00 440.00		
Retaining Structure Analysis Recommendations						
 a. Conventional Retaining Struct., MSE Walls i. Shallow Foundation ii. Deep Foundation iii. Settlement Analysis for Retaining Wall Foundation b. Pile Retaining Structure Analysis and Recommendations i. Free Standing Structure ii. Retaining Structure with Tie-Back System c. Drilled-in-Pier Retaining Structure Analysis i. Free Standing Structure ii. Retaining Structure with Tie-Back System 	2	each each each each each	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	800.00 1,060.00 340.00 925.00 1,340.00 945.00 1,360.00	\$	1600.00
	Geotechnical Report a. Without Soil Subgrade Invest First Mile Each Additional Mile b. With Soil Subgrade Invest First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each additional Mile Settlement Analysis and Recommendations for Embankment a. Proposed Embankment b. Proposed Embankment d. Proposed Analysis Embankment Ground Modification Design Slope Stability Analysis a. c/0 or c and 0 Analysis b. Corrective Measures c. Stage Construction Corrective Method Bridge Foundation Analysis and Recommendations a. Shallow Foundations b. Deep Foundation b. Deep Foundation analysis ii. Wave Equation Analyses c. Settlement Analysis for Bridge Pier Foundation i. Bridge Pier ii. Embankment Plus Pier iii. Embankment Plus Pier Plus All Other Loads d. Foundation on Bedrock Retaining Structure Analysis Recommendations a. Conventional Retaining Struct., MSE Walls i. Shallow Foundation iii. Deep Foundation iiii. Settlement Analysis for Retaining Wall Foundation b. Pile Retaining Structure Analysis and Recommendations ii. Free Standing Structure iii. Retaining Structure iii. Retaining Structure iii. Free Standing Structure iii. Free Standing Structure iii. Free Standing Structure	Geotechnical Report a. Without Soil Subgrade Invest First Mile Each Additional Mile b. With Soil Subgrade Invest First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each additional Mile Settlement Analysis and Recommendations for Embankment a. Proposed Embankment b. Proposed Embankment c. Proposed Embankment c. Or or and O Analysis a. c/O or c and O Analysis b. Corrective Measures c. Stage Construction Corrective Method Bridge Foundation Analysis and Recommendations a. Shallow Foundations b. Deep Foundation analysis ii. Wave Equation Analyses c. Settlement Analysis for Bridge Pier Foundation i. Bridge Pier iii. Embankment Plus Pier Plus All Other Loads d. Foundation on Bedrock Retaining Structure Analysis Recommendations a. Conventional Retaining Struct., MSE Walls i. Shallow Foundation iii. Deep Foundation iii. Settlement Analysis for Retaining Wall Foundation b. Pile Retaining Structure Analysis and Recommendations i. Free Standing Structure iii. Retaining Structure	Geotechnical Report a. Without Soil Subgrade Invest First Mile Each Additional Mile b. With Soil Subgrade Invest First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile Lump sum Mile Lump sum Mile Lump sum Mile C. Soil Subgrade Invest. Only - First Mile Each Additional Mile Lump sum Mile each each each each each each each eac	Geotechnical Report a. Without Soil Subgrade Invest First Mile Each Additional Mile b. With Soil Subgrade Invest First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each Additional Mile c. Soil Subgrade Invest. Only - First Mile Each additional Mile c. Soil Subgrade Invest. Only - First Mile Each additional Mile soil Imp sum Each additional Mile soil Imp su	Service	Service

<u>Iten</u>	<u>Serviçe</u>	Est. <u>Qty.</u>	<u>Unit</u>		Unit <u>Price</u>	Item <u>Total</u>
61.	Seepage Analysis		each	\$	1,275.00	
62.	Deep Dynamic Compaction Analysis		each	\$	1,305.00	
63.	Field Inspector		hour	\$	62.00	
64.	Monitoring Geotechnical Instrumentation		hour	\$	62.00	
65.	Integrity Testing				cost +10%	
66.	Dynamic Pile Analysis		each	\$	960.00	
67.	Static Load Test		each	\$	960.00	
68.	Dynamic Pile Load Test				cost +10%	
69.	CAPWAP C - Analysis		each	\$	455.00	
70.	Final Construction Inspection Report		each	\$	850.00	
71.	Foundation Evaluation by Non-Destructive Meth. a. Surface Test/Pier or Foundation b. Borehole Test/Pier or Foundations				cost + 10% cost + 10%	
	Pavement I	nvesti	gation			
1.	Mobilization of Coring Equipment		each	\$	195.00	
2.	Mobilization Mileage for Coring Equipment		mile	\$	1.75	
3.	Pavement Core (Partial Depth)		each	\$	115.00	
4.	Pavement Core (Full Depth) a. Standard b. Night Time		each each	\$ \$	170.00 204.00	
5.	Subbase Sample		each	\$	56.00	
6.	Cement Concrete Pavement Core Density Determination		each	\$	29.65	
7.	Cement Concrete Core Compressive Strength Test		each	\$	28.65	
8.	Bituminous Extraction Test		each	\$	75.00	

<u>lterr</u>	<u>Service</u>	Est. <u>Qty.</u>	<u>Unit</u>	Unit <u>Price</u>	Item <u>Total</u>
9.	Sieve Analysis of Extracted Aggregate Test		each	\$ 51.50	
10.	Recovery of Asphalt from Solution by Abson Method		each	\$ 309.00	
11.	Theoretical Maximum Specific Gravity Test		each	\$ 66.00	
12.	Bulk Specific Gravity Tests		each	\$ 30.60	
13.	Air Voids Calculation		each	\$ 25.75	
14.	Core Report for Partial Depth Core		each	\$ 30.50	
15.	Core Report for Full Depth Core		each	\$ 37.50	
16.	Pavement Analysis and Report		each	\$ 710.00	
				Total = \$	26,220.80